

Section 5

Recommended Implementation Activities

5.1 Introduction

The following sections identify the activities recommended for implementation during the next permit term. The discussion is divided into two parts:

- Recommendations for immediate implementation – elements to be developed during the first two years of the next MS4 Permit (“Short-Term Implementation”) and implemented through the remaining permit term; and
- Recommendations for phased implementation - elements to be developed for implementation during the next MS4 Permit term or evaluated for potential implementation in a future MS4 Permit (“Long-Term Implementation”).

5.2 Short-Term Implementation

The short-term implementation activities will be developed/implemented during the first two years of the next MS4 Permit. The following sections describe these proposed activities, including tasks associated with implementation of the MSAR Bacterial Indicator TMDL (Note: If the Big Bear Lake Nutrient TMDL is adopted, approved and implemented within the next two years, tasks associated with that TMDL would be included as short-term implementation activities as well).

5.2.1 MSAR Bacterial Indicator TMDL Implementation

The MSAR Bacterial Indicator TMDL includes requirements for monitoring and special studies and based on the findings from these efforts, modifications to the MSWMP and WQMP to control bacteria in stormwater to the maximum extent practicable. Accordingly, the following activities are proposed for implementation during the next permit term:

5.2.1.1 Implementation of Urban Source Evaluation Plan (USEP)

The USEP likely will be developed by the time the next MS4 Permit is issued. Following approval of the USEP (which is being developed in coordination with other TMDL stakeholders), the permittees will implement their assigned responsibilities under the plan. The findings from this study will be used to support modifications to the MSWMP to reduce bacteria loads from identified sources that may be controlled through the stormwater management program.

5.2.1.2 Comprehensive Bacterial Monitoring Program

The permittees will work with other TMDL-affected parties in the MSAR watershed to develop and implement a RWQCB-approved watershed-wide monitoring program consistent with TMDL requirements. The purpose of this effort is to provide the data necessary to review and update the MSAR Bacterial Indicator TMDL, as needed, and

evaluate compliance with TMDL targets. The permittees plan to work closely with other TMDL stakeholders in the development and implementation of this monitoring program.

5.2.2 Risk-Based Program

Experience gained under the existing stormwater permit has demonstrated the need to develop a new approach for prioritizing inspections so that resources are directed to the most important facilities/sites first. This shift in emphasis is particularly important with the need to become TMDL-focused. The current inspection prioritization system treats all facilities within a particular category as equal (even though their contributions of pollutants to stormwater may vary substantially) and assigns levels of priority that may be inappropriate given the experience learned over time regarding the risk of stormwater pollutant discharge from the particular facility.

To address this need to change the way inspections are prioritized, the permittees will develop a risk-based scoring system to govern the frequency of inspections and the selection of sites to be inspected. The scoring system shall consider factors including, but not limited to: the hazardous nature of materials used on site, the potential for pollutant discharges (particularly of pollutants for which a TMDL has been established), on-going efforts to implement effective BMPs, and site size and location including proximity to receiving water. The scoring system would be subject to annual review and updated as appropriate.

Once a risk-based prioritization approach is developed for the inspection program element, risk-based prioritization can also be used to re-prioritize other program elements, such as public information and participation (PIP), training and monitoring. For example, re-prioritizing PIP program activities to support TMDL implementation could be an important tool for reducing sources of pollutants such as bacteria.

5.2.3 Recreational Use Evaluation and Classification System

The SQSTF is preparing recommendations for changes to the Basin Plan that will affect the applicability of REC-1 and REC-2 use designations, modify the water quality objectives for bacteria and establish an acceptable methodology to refine or reclassify recreational uses in the basin. Once this methodology is established, it may be used by the permittees to evaluate and, if appropriate, propose specific waterbodies for reclassification.

Accordingly, it is recommended that the Management Committee develop area-wide guidelines for use by the permittees if any permittee chooses to implement the SQSTF findings. Development of guidelines will help ensure that any effort to modify uses through the development of a Use Attainability Analysis on waters within the jurisdiction covered by the MS4 Permit is coordinated among potentially affected permittees.

5.2.4 Systems to Measure Program Effectiveness

Measuring program effectiveness continues to be a challenge for any stormwater program. Direct measurement of water quality provides useful data regarding whether or not water quality is being protected. However, many of the indirect measures (for example, numbers of inspections, number of Notices of Corrections) provide little to no information on whether or not water quality has at been improved or at least not further degraded.

With the stormwater program moving away from a process-based program to an outcome-based program, the annual evaluation of program effectiveness would benefit from focusing more on direct measures of improvements in water quality or pollutant loads reduced rather than status reports for each program area. To that end, the permittees propose to review and where appropriate revise the methods used to evaluate program effectiveness. Any modifications to reporting would be incorporated into the annual report provided to the RWQCB.

5.2.5 Pollutants of Concern Evaluation

Section 3, Discharge Characterization, identified pollutants as potential concerns in the watershed based on the findings of water quality monitoring efforts. These pollutants and their order of priority from high to low are: bacteria, metals (zinc, copper, lead), nutrients (nitrate as nitrogen, total phosphorus), TSS and COD. Section 3 provides a general overview of some of the issues associated with these pollutants, including the view that some of these pollutants are minimal concerns at best. For example, the toxicity of a metal greatly depends on the form it is in and other water quality factors which greatly influence its toxicity (for example, total organic carbon, alkalinity, hardness, etc.).

Under this implementation recommendation, the permittees propose to assess each of the pollutants considered a concern (except bacteria, which is already addressed by a TMDL) and prepare a strategic plan for addressing the pollutant. For some pollutants such as the metals, special studies would likely be recommended, for example, development of site-specific objectives or total recoverable/dissolved translators. For other pollutants, the strategic plan may result in a finding that the pollutant is not a concern at all and would provide the backup data to support that finding.

5.2.6 Inspection Scheduling System

All agencies have limited resources for conducting inspections within the County. However, in some instances a permittee's inspector and a RWQCB staff person have inspected the same facility within days of one another resulting in a duplication of effort. To address this inefficient use of resources, it is recommended that the Management Committee work with the RWQCB to develop an inspection scheduling system that can be easily maintained and shared among the permittees.

5.2.7 Grant Applications to Implement Structural BMPs

The State occasionally implements grant programs which provide opportunities for jurisdictions to obtain money to address specific water quality problems. For example, the USEP may identify specific sources that could be controlled through the implementation of structural BMPs. Where such projects are identified, grant funds may be applied for to implement the BMPs.

During the next permit term it is recommended that the Management Committee establish a mechanism to monitor grant programs and share with other permittees information on grant opportunities. These grants could be applied for by all permittees through the Management Committee, by a group of interested Co-Permittees or locally by an individual permittee.

5.3. Long-Term Implementation

Some of the recommended implementation activities may require substantial time to evaluate, develop and, if feasible, implement. This expectation is due in part to the fact that some of these recommendations require cooperation with other MS4 Permit jurisdictions, for example, Riverside County. Accordingly, the recommendations described below are, at a minimum, intended to at least be evaluated during the next permit term. Where implementation can proceed, the permittees expect to move forward later in this permit term or under future permit terms.

5.3.1 Regional Coordination

MS4 Permits contain program elements where implementation may be supported by other County agencies or coordinated with other MS4 Permit programs. This is especially true for situations where another agency is carrying out a similar or related function (for example, inspections) or when the MS4 permitted areas are nearby or within the same watershed. Where MS4 permitted areas have common interests, examples of program elements that could be coordinated include: public information and participation, training, monitoring and special studies (for example, such as described in Section 5.2.5).

During the next permit, it is recommended that the Management Committee establish a subcommittee to explore the potential to implement stormwater program elements cooperatively with other regional agencies or other MS4 Permit programs.

5.3.2 Regional Treatment Alternatives

Development of regional treatment alternatives would provide opportunity for mitigating pollutants at one location that are carried by stormwater over significant areas of a watershed. While there is interest on all sides to move this approach from concept to reality, a key stumbling block is the application of beneficial uses to all waterbodies. For example, under current Basin Plan regulations a stormwater channel that carries stormwater to a regional treatment system could be protected for the same beneficial uses and WQOs that are applied to waters leaving the regional treatment

system. As long as this lack of distinction exists, implementation of a regional treatment alternative carries minimal implementation benefit to stormwater dischargers – from a water quality standpoint.

During the next permit term, it is recommended that the Management Committee establish a subcommittee to explore regional treatment alternatives, including regulatory and planning barriers and potential solutions. If appropriate this subcommittee could work with other jurisdictions (for example, Riverside County or Caltrans) and a RWQCB representative.

5.3.3 Market-Based Performance Programs

Performance bonds are commonly used for reclamation permits associated with mining activities. These bonds are required to ensure that funds are available to address environmental clean-ups, especially if the mining company fails. The concept of a performance bond could also be applied to stormwater program elements (for example, new development activities). Examples of the application of performance bonds to these types of stormwater elements exist in other states.

It is recommended that the Management Committee develop a performance bond program that can serve as a model for the region. It would be up to each individual permittee to decide if they wanted to seek the legal authority within their jurisdiction to adapt the model to their jurisdiction and implement a performance bond program.

5.3.4 Local Implementation Plan (LIP) Development

An LIP can facilitate internal coordination within each permittee's jurisdiction by defining roles and responsibilities and the process for implementation of Stormwater Management Program activities. During the next permit term, each permittee will develop an LIP for its jurisdiction based on a model developed by the Management Committee. Care will be taken to ensure that no unnecessary obligations are created by the development of the LIP. Examples of the types of information that could be documented in the LIP include identification of:

- The roles and responsibilities of each department within a permittee's jurisdiction for implementation of the Stormwater Management Program
- The types of reporting information that will be provided by each department to fulfill annual reporting requirements;
- The process for the review of program-related documents and sharing of information between departments, for example how the WQMP is developed, reviewed and approved;
- The tools (for example, checklists or BMP handouts) that are used to support program elements.

5.3.5 Inter-Agency Transfer of Best Program Practices

The RWQCB or EPA may periodically conduct stormwater program audits. While these audits may identify program deficiencies, they also can highlight commendable program practices. When such practices are highlighted, they should be recognized as “Best Program Practices.” To benefit all permittees, it is recommended that a mechanism or methodology be developed to facilitate tech-transfer so that, where desired, these practices can be easily identified and described so that they can be incorporated into the local stormwater programs of the other permittees.

5.3.6 Database of Post-Construction BMPs

As a means to increase the efficiency of program implementation throughout the County, it is recommended that the Management Committee develop a post-construction BMP database that is associated with the MS4 Solution database. The primary purpose of the database would be to provide a means for tracking long-term responsibility and accountability for operating and maintaining BMPs throughout the area. In addition, the database could also be used to facilitate technology transfer by allowing construction engineers to search the base of installed alternatives for appropriate stormwater mitigation strategies. However, inclusion of a particular BMP in the database would not constitute a specific endorsement by the Co-Permittees of suitability for use in a different project. Responsibility for demonstrating the effectiveness of the selected BMP approach would remain solely with the project developer. Information that could be contained in the database includes identification of BMPs to address specific pollutants, effectiveness data for BMP types, construction costs, parties responsible for maintenance, and operating costs. Information would be developed based on actual experience in San Bernardino County and could also contain information from other regional or national BMP databases.